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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,918	08/02/2001	Allison H. Sampson	P66732US0	3989

7590 07/29/2004
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EXAMINER

NGUYEN, NGOC YEN M

ART UNIT PAPER NUMBER

1754

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,918

Applicant(s)

SAMPSON ET AL.

Examiner

Ngoc-Yen M. Nguyen

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-12 and 16-43 is/are pending in the application.
- 4a) Of the above claim(s) 28-41 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9 and 16-28 is/are allowed.
- 6) ☒ Claim(s) 2-5, 10-12, 42 and 43 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

Art Unit: 1754

Applicant's election of Group I in the reply filed on November 10, 2003 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 28-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on November 10, 2003.

The amendment filed August 8, 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "Those skilled in the art..., such as in an electrolytic reactor".

Applicant is required to cancel the new matter in the reply to this Office Action.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2-5, 10-12, 42-43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

Art Unit: 1754

convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants are requested to point out support in the instant application, as originally filed, by page and line numbers, for the limitation of "outside an electric field" as required in the instant claims 2, 4 and 10. It should be noted that the amendment to the specification, filed August 8, 2003, is considered as new matter (note the objection as stated above).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Callerame (3,684,437).

Callerame '437 discloses a process for producing chlorous acid by ion exchange between a mixed cation-anion exchange resin and a aqueous chlorite solution (i.e., moist environment) of an alkali metal or an alkaline earth metal (note claim 1).

The cation exchange resin has its active sites occupied by hydrogen (note column 2, lines 1-7).

The anion is considered as the required "additive".

The process of Callerame '437 anticipates the claimed process.

Claims 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Callerame (3,828,097).

Callerame '097 discloses a process of preparing chlorous acid by flowing an aqueous solution (i.e., "moist" environment) of a metal chlorate and a nitrite through a cation exchange resin, the active sites of which are occupied by hydrogen (note claim 1).

The nitrite is considered as the claimed "additive".

The process of Callerame '097 anticipates the claimed process.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3, 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Callerame '437 in view of Kross et al (5,100,652).

The difference not yet discussed is Callerame '437 does not teach the step of contacting chlorous acid with a catalytic material to form chlorine dioxide.

Kross '652 discloses that vicinal dihydroxy or polyhydroxy compound catalyzes the formation of chlorine dioxide from chlorous acid (note column 5, lines 47-53).

It would have been obvious to one of ordinary skill in the art to use vicinal dihydroxy or polyhydroxy compound as catalytic material to form chlorine dioxide from chlorous acid of Callera '437 as suggested by Kross '652 because chlorine dioxide formed by such method can be used as oral disinfectants which do not have the strong unpleasant taste of chlorine (note abstract of Kross '652).

Claims 4-5, 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callera '097 in view of Kross et al (5,100,652).

The difference not yet discussed is Callera '097 does not teach the step of contacting chlorous acid with a catalytic material to form chlorine dioxide.

Kross '652 is applied as stated above. It would have been obvious to one of ordinary skill in the art to use vicinal dihydroxy or polyhydroxy compound as catalytic material to form chlorine dioxide from chlorous acid of Callera '437 as suggested by Kross '652 because chlorine dioxide formed by such method can be used as oral disinfectants which do not have the strong unpleasant taste of chlorine (note abstract of Kross '652).

Claims 6-9, 16-27 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach or suggest a process for producing chlorous acid by contacting a chlorate with an anion exchange material or a process for producing

Art Unit: 1754


chlorous acid and chlorine dioxide together by using a chlorate and a cation or an anion exchange material.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (571) 272-1356. The examiner is currently on Part time schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stan Silverman can be reached on (571) 272-1358. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed (571) 272-1700.


Ngoc-Yen M. Nguyen
Primary Examiner
Art Unit 1754

nmn
July 26, 2004